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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/834,826	04/13/2001	Andy Catalin Nego	CH 000008	4307

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EXAMINER

SHAPIRO, LEONID

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 08/18/2003

112

Please find below and/or attached an Office communication concerning this application or proceeding.

112

Office Action Summary

Application No.

09/834,826

Applicant(s)

NEGOI ET AL.

Examiner

Leonid Shapiro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 14-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The stored basic setting or correction factor independent ambient temperature are neither described in specification nor shown in the drawings. For the LCD technology it is impossible to envision any parameters independent of temperature.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5-13, 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto (US Patent No. 5,515,074) in view of Conover et al. (US Patent No. 6,414,664 B1).

As to claim 1, Yamamoto teaches a driver circuit for display device comprising: means for storing a basic setting of an adjustable characteristic of the driver circuit (See Fig. 1, items 11, 14, in description See Col. 3, Lines 1-7); characterized in that the driver circuit includes a

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means for storing and accessing a correction factor to correct the basic setting of the adjustable characteristic of the driver circuit (See Fig. 1, items 11-14, 18, in description See Col. 3, Lines 1-42) and in that the driver circuit is operative to adjust the adjustable characteristic based on the base setting and the correction factor (See Fig. 1-2, items ST6,ST6A,ST7, in description See Col. 4, Lines 61-68 and Col.5, Lines 1-5).

Yamamoto does not show the driver circuit is operative to adjust the adjustable characteristic based on the combined effect of both the basic setting and the correction factor.

Conover et al. teaches the driver circuit (voltage generator) (See Fig. 2, item 270, in description See Col. 8, Lines 34-35) is operative to adjust the adjustable characteristic based on the combined effect of both the basic setting (variables 160) (See Figs. 1-2, item 160, in description See Col. 7, Lines 28-31) and the correction factor (variables 240) (See Figs. 1-2, items 140, 240, in description See Col. 7, Lines 14-16).

It would have been obvious to one of ordinary skill in the art at the time of invention to use combined effect of both basic setting and the correction factor as described by Conover et al. in the Yamamoto apparatus in order to control contrast of LCD (See Col. 4, Lines 31-32 in the Conover et al. reference).

As to claim 2, Yamamoto teaches a means for storing and accessing a correction factor to correct the basic setting of the adjustable characteristic of the driver circuit (See Fig. 1, items 11-14, 18, in description See Col. 3, Lines 1-42).

As to claims 7-8, Yamamoto teaches to adjust the adjustable characteristic based on the base setting and the correction factor (See Fig. 1-2, items ST6,ST6A,ST7, in description See Col. 4, Lines 61-68 and Col.5, Lines 1-5).

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As to claim 9, Yamamoto teaches to adjust the adjustable characteristic based on the base setting and the correction factor (See Fig. 1-2, items ST6,ST6A,ST7, in description See Col. 4, Lines 61-68 and Col.5, Lines 1-5).

As to claim 10, Yamamoto teaches a driver circuit for display device comprising: means for storing a basic setting of an adjustable characteristic of the driver circuit (See Fig. 1, items 11,14, in description See Col. 3, Lines 1-7), a means for storing and accessing a correction factor to correct the basic setting of the adjustable characteristic of the driver circuit (See Fig. 1, items 11-14, 18, in description See Col. 3, Lines 1-42).

Yamamoto does not show means for generating a drive signal for the display device that is determined by the stored basic setting as modified by the correction factor.

Conover et al. teaches means for generating a drive signal for the display device (voltage generator) (See Fig. 2, item 270, in description See Col. 8, Lines 34-35) that is determined by the stored basic setting (variables 160) (See Figs. 1-2, item 160, in description See Col. 7, Lines 28-31) as modified by the stored correction factor (variables 240) (See Figs. 1-2, items 140, 240, in description See Col. 7, Lines 14-16).

It would have been obvious to one of ordinary skill in the art at the time of invention to use combined effect of both basic setting and the correction factor as described by Conover et al. in the Yamamoto apparatus in order to control contrast of LCD (See Col. 4, Lines 31-32 in the Conover et al. reference).

As to claim 3, Yamamoto teaches basic setting of an adjustable driver characteristic is a PROM type (See Fig. 1, item 14, in description See Col.3, Lines 3-4).

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As to claim 5, Conover et al. teaches the correction factor in the means for storing a correction factor is based on an individual property of the particular display device (See Fig. 2, item 240, in description See Col. 8, Lines 32-35).

As to claim 6, Yamamoto teaches a method of adjusting an individual property of a display module containing a display device and a driver circuit connected to this display device characterized in that the method including following steps determining a basic setting based on expected characteristics of the display device and characteristics of the driver circuit, storing the determined basic setting to be used by the driver circuit (See Fig. 1, items 11,14, in description See Col. 3, Lines 1-7), storing the correction factor to be used by the driver circuit (See Fig. 1, items 11-14, 18, in description See Col. 3, Lines 1-42).

Yamamoto does not show determining a correction factor to the basic setting based on the actual characteristic of the display device and the characteristics of the driver circuit when the basic setting is used.

Conover et al. teaches determining a correction factor (variables 240) (See Figs. 1-2, items 140, 240, in description See Col. 7, Lines 14-16).

It would have been obvious to one of ordinary skill in the art at the time of invention to use combined effect of both basic setting and the correction factor as described by Conover et al. in the Yamamoto apparatus in order to control contrast of LCD (See Col. 4, Lines 31-32 in the Conover et al. reference).

As to claims 11-13,16-17, Yamamoto teaches means for deriving the correction factor by a calibration operation based on upon measurement of optical quality of the display device, spread of manufacturing process and typical temperature dependence without adjustment by the

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user by updating correction factor (data memory) for each time the main switch is turn on (See Fig. 2, items ST3-ST5, ST9, in description See from Col. 3, Line 57 to Col. 4, Line 5).

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto and Conover et al. as aforementioned in claim 1 in view of Inoue (US Patent No. 5,517,212).

Yamamoto and Conover et al. do not teach the correction factor has a substantially smaller adjustment range than the basic setting of the adjustable characteristic of the driver circuit.

Inoue teaches the correction factor has a substantially smaller adjustment range than the basic setting of the adjustable characteristic of the driver circuit, with range of adjustment of 2V with reference of peak voltage 20V (See Fig. 2-3, items 13, Vlcd, in description see Col. 4, Lines 39-44). It would have been obvious to one of ordinary skill in the art at the time of invention to use range of adjustment in relation to peak voltage as described by Inoue in the Yamamoto and Conover et al. apparatus in order to increase flexibility of adjustment circuit (See Col.2, Lines 19-20 in Inoue reference).

Response to Amendment

3. Applicant's arguments filed on 07-07-03 with respect to claims 1-13, 16-17 have been considered but are moot in view of the new ground(s) of rejection.

Response to Arguments

4. Applicant's arguments filed 07-07-03 have been fully considered but they are not persuasive.

On page 10, 3rd paragraph in relation to claims 14-15, the applicant admitted that ambient temperature is a factor in the values of the adjustable characteristic of the driver circuit, it is not a factor in the calibration procedure for arriving at the stored basic setting or the stored correction factor. However, as result of calibration procedure at the different temperatures different values of basic setting and correction factor will be stored. So, it is wrong to declare the stored basic settings and correction factor as being independent of ambient temperature.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

The Mizuno (US Patent No. 6,313,821 B1) reference discloses image display device for automatically adjusting contrast of display image.

The Ramamurty et al. (US Patent No. 6,121,949) reference discloses method and apparatus for automatically maintaining a predetermined image quality in a display system.

Telephone inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 703-305-5661. The examiner can normally be reached on 8 a.m. to 5 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 703-305-4938. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

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